

Warmley
Rural District Council.

ANNUAL

REPORT

OF THE

Medical Officer of Health

For the Year 1904.



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Warmley Rural District Council.

ANNUAL REPORT,

. . 1904 . .

Of the Medical Officer of Health.

GENTLEMEN,

It gives me much pleasure to again present you with the Annual Report. During the year I have again received the usual support of both your Council and its officers, and I desire here to express my best thanks.

The Report will again take the usual course, noting under the different headings both what has happened during the year and what remains to be done. Your Surveyor, under whose sole charge lies the usual Surveyor's duties, as well as the management of the outfall works for Mangotsfield, at Moorend, will send a separate Report on the discharge of the work under his charge, and regarding which, except at second hand, I have no information. The Inspector of Nuisances and of Factories will also send a separate Report; both of which reports are to be included and printed with this.

The Monthly and Quarterly Reports, as well as those to the Mangotsfield Parochial Committee, have been continued during the year, and matters of interest have been kept before your notice in due course. Statistics have been accurately kept before you. At the end of this Report I shall give you separate statistics for the parish of Mangotsfield, which contains more than the half of the Population of your district, and is mostly of a more distinctly Urban character. In the body of the Report I shall often mention distinctively the conditions in this parish.

The tables of the Local Government Board are the same as those of last year, and they furnish a large amount of information commented on in this report. In addition there is a table from the County Council, which is partly filled up by the Surveyor, the Inspector, and myself. The table of rain-fall has been kindly supplied to me by the Vicar of Pucklechurch, a parish just outside our boundary, in which the rain-fall cannot much differ from that of our own area. The table drawn up by your Clerk, and supplied to me by him, regarding the Urban powers which we possess, is also appended, and shows that we have all the Urban powers which we need. We have also adopted certain powers from certain Acts. These things show that we are in no need of becoming an Urban district, in whole or in part, for some time to come ; and considering the high rates we have now to pay, it would be the extremity of folly to take any steps which would increase them. If we would obtain, by becoming wholly or partly an Urban district, remunerative advantages, the matter could then be discussed ; but, in my opinion, the conditions at present render the matter not ripe for discussion.

The City of Bristol for the present has given up the attempt to get a portion of your area included in the City. This course of events for the present, therefore, lies in abeyance.

The representation of Mangotsfield remains the same as in the past. Considering the two facts of the rateable value and the population, some modification must take place soon, especially in connection with the relation of Kingswood.

The Inspector of Factories and Workshops will make a separate Report regarding these places. The factories in the district are few, and the larger ones especially are all under fairly good conditions. The workshops may be classed as fair. Many improvements have been made. These consist chiefly of shoemakers' places, and, as I have before stated, are small, and either connected with the back of the dwelling-place, or separate buildings in the garden. They are, as a rule, only ventilated by the door being kept open. The light is generally good, the flooring good, and the walls also good. The work places are usually part of the house, generally the kitchen, where the cooking is done. These are occupied by shoemakers and tailoresses. As a rule they are clean, and situated in the county or semi-urban parts, are well lighted and well ventilated. Trouble comes with a case of infectious disease, when all work is stopped, as we have no Infectious Diseases Hospital, at least, not an available one ; any information regarding the specific conditions of these workpeople is in the hands of your Inspector. But, generally speaking, I can say that the conditions of labour in these workplaces are good, and much better than those of such places in many parts of the kingdom.

I have mentioned that the population of Mangotsfield is urban in character. That applies, however, only to Soundwell, Staple Hill, Downend, and to the Village of Mangotsfield ; the rest of the parish is quite rural. Soundwell is contiguous with Kingswood

urban area on the south, and with Staple Hill on the north. The greater part of the Mangotsfield Ward of Kingswood was taken from Mangotsfield. Staple Hill is also contiguous with Bristol on the west and with Downend on the north. The parish of Siston, though largely rural, contains towards Kingswood a semi-urban area at Warmley, also contiguous with Kingswood. Oldland parish has a semi-urban area at Warmley Batch and Cadbury Heath, and another along Park Wall to Longwell's Green, where it joins the Parish of Hanham Abbots. The latter parish has also a semi-urban area contiguous with Kingswood. Bitton is chiefly rural, though there are thickly-populated portions along North Common and Oldland Common, and at the Village of Bitton.

Geology.—The geological formation may be here noticed. According to *Lyall*, the upper and lower coal measures in the Bristol coal fields are divided by the pennant ("a micacious flaggy sandstone"). Parts of the Parishes of Mangotsfield, Bitton, Oldland, and Hanham Abbots lie on the upper coal measures. The dividing pennant crops out here and there very frequently, and is quarried for many purposes, such as building stone, monumental stone, etc. Overlying the pennant in Soundwell, Siston Common, and Staple Hill, is a thick bed of clay, which is used for brick and tile making. Towards Siston Common and Siston Hill a thin bed of soft shale crops to the surface, but the upper part of Siston parish, with the rural part of Bitton parish, and the Village of Bitton, lie on the lower lias. The slopes of Golden Valley show an outcrop of new red, with a tongue of lias around the coal there. Another small portion of new red crops out at Mangotsfield Station.

The general conformation of the surface is undulating, There is a considerable rise from the Avon, which bounds your area on the south, to the slopes of the Lansdown Hills; and again from the Frome and Folly Brook, which constitutes your boundaries on the north, to the top of Hopewell Hill, near Kingswood, on the south.

Two small streams run through the district. The Siston Brook forms the boundary on the Kingswood side, as far as Warmley, after which it runs through your district till it joins the Avon at Londonderry. The River Boyd rises in the high grounds round Pucklechurch, Westerleigh, Wick, and Bitton, and flows through Golden Valley, also to join the Avon. The Urban districts of Bristol and Kingswood close you in on the south and west, while to the north and east lie the rural districts of Barton Regis, Chipping Sodbury, and Keynsham. The whole area, except where the clay comes to the surface, is covered by a pervious or rocky soil, is easily drained, and possesses, as at Frenchay and Bitton, spots of great beauty.

The inhabitants of your area consist of the lower middle, but chiefly of the working class. As in every working-class area, there is a goodly number who class themselves as working-men, but who never do any constant work. The staple industries are coal-

mining and shoe-making. All the coal-pits, now employing these miners are in surrounding areas. There are five or six fairly large shoe factories in your district, but most of the shoemakers find employment at the factories of Kingswood and Bristol; a large proportion of them do their work at home, in the kitchen, back kitchen, or a small workshop built behind the house. Your Inspector will, so far as he has been able to go over them, tell you of their condition. The coal-miners work in well-ventilated mines, and comparatively few accidents occur amongst them. I do not think phthisis, or other respiratory diseases, occur more frequently among them than among others of the community. Emphysema occurs amongst the branchers, but that is due to their entering the heading before the smoke of a shot has cleared away.

The factories in your district are well built, well ventilated, well lighted, and well conducted. The sanitary appliances are, for the most part, adequate, and, with two exceptions, the egress in case of fire is fairly good. The workers in these factories have average health.

Besides the boot factories, there is a large paper mill at Bitton employing many hands; a stay factory on Oldland Common, which I have always pointed out as a model for others; and a clothing factory on Staple Hill, which is not far behind. Brick and tile making is carried on at Warmley, and at Shortwood, just outside your area, where many from your district are employed. Quarrying pennant stone employs a goodly number of men, and lime-burning employs others. Market-gardening is becoming every year a larger industry, owing to the proximity of the City of Bristol.

Many men are employed in different industries in Bristol, such as cocoa and chocolate making, tobacco manufacturing, etc. Others, again, are employed in agricultural pursuits, such as dairy farming and grain growing.

The women are employed in paper-making, light shoe-making, boot-closing, stay-making, and tailoring. The four last mentioned are chiefly conducted at home, and generally in the kitchen. Except amongst the shoemakers, the kitchens are very fairly clean; but I find the air overheated and giving off foul smells. These workshops are not constructed properly, as most of them were constructed primarily as kitchens. Many of these houses are cottages, so that when a case of infectious disease occurs in one of them, no isolation is possible, the work is stopped, and the inmates, in a week or two, thrown on the parish. Worse, however, than that happens. There is a great inducement to hide cases of mild epidemic disease. I have often found this to be the case, associated with a strong assumption of ignorance difficult to deal with. It leads to a constant spread of epidemic disease to us from Kingswood and Bristol, and *vice versa*.

Sewerage and Drainage.—In the parish of Mangotsfield a drainage scheme was carried out some years ago. The whole parish is drained by a water carriage system, which conveys the sewage to outfall works at Moored. These outfall works

were at first constructed on the international system, but Mr. Bennett, the Surveyor, gradually converted them into a bacterial system, which has now been in operation for the whole of the sewage more than a year, and which seems to work very well. At any rate the effluent is good enough to pass finally into the Frome. I believe analyses are occasionally made by Mr. Waterfall, of the different fluids at these works, at Mr. Bennett's request, to ensure that the works are efficient. Mr. Bennett is now in full charge of these works as well as of the sewers.

The sewers seem equal to their work. Land water still enters them, I understand, but less than formerly. My chief complaint is with regard to hand-flushed closets. These are chiefly in cottage property, whose inhabitants are the least likely to flush properly and regularly. It is not at all uncommon to find a closet full; and when that is flushed with two or three buckets of water, the house drain is apt to get blocked for a time with deposit of decomposing matter, which eventually passes into the sewers. But it is just cottage property that cannot bear the expense.

The other four parishes of the district have no system of drains or sewers. Each house either drains into a cesspool, or the garden immediately utilizes the slop water and house refuse, and a privy contains the rest. The cesspools are not generally water-proof or ventilated, but are constructed so as to allow the fluid to overflow or find its way into the surrounding ground. The ground water, and possibly the spring, thus become polluted. The improvement in this condition of things is necessarily slow, for both owners and occupiers are opposed to it *vis inertiae*. I have constantly advised the more general use of earth closets as a palliative. In the purely rural parts, however, there is not much danger from this want of drainage. But there are a few places, where the houses are more numerous and placed as closely as in an urban district; in these places the cesspool plan is more general, the cesspools are often of a better class, and the inhabitants are more careful. But in Warmley, Warmley Batch, Cadbury Heath, North Common, Oldland Common, Longwell's Green, Willsbridge, and Bitton Village, a large number of the houses contain the leaking cesspool, or drain into Siston Brook directly. A good deal has been done to ameliorate the condition of the brook. But in many places, *e.g.*, at Bitton Village, the drains, where there are any, pass directly to the brook. I have had occasion during the year to draw your attention to such places. Some years ago your Inspector and myself made an inspection of the whole course of the brook in your district, and drew up a report thereon. After that, many people altered their drainage so as to keep the sewerage from directly joining the brook, but a good deal remains yet to be done.

I have still to complain, as in former years, of the filthy way in which the cesspool of Cadbury Heath County School is cleansed. The School authority simply does nothing. I drew the Inspector's attention to it on one occasion, and I have complained each year for some time in this Report. The earth closet system

which is in vogue at Bitton County School answers very well, and could be used at this School as well.

Scavenging.—The removal of house refuse is undertaken by the Council in the Parish of Mangotsfield. In the other four parishes each household removes or utilizes its own.

Lighting.—The lighting of Mangotsfield parish is now nearly completed. Gas Lamps with incandescent burners are used where the gas mains are laid ; and oil lamps where the mains are not. It has been a great improvement during the winter.

Water Supply.—The West Gloucestershire Water Company is the chief distributor of water over the district. Its mains are laid over the greater part of your area, except to the purely rural parts, where it is not needed, as the wells give a good and pure supply. The wells are not often properly guarded, and their walls are of dry stone, allowing percolation through them. An improvement in many supplies has taken place during the year ; Dibdenfarm and the remainder of Viney Green are now supplied by the Company. Blackhorse is yet, however, dependent on a bad and insufficient supply. Your own cottage at Moorend is not yet supplied, nor are the cottages at Berry Hill and Moorend. Webb's Heath and Pomfrey are still without any good water. During the year some attempts have been made to come to an understanding with the occupiers and owners at Webb's Heath, but up to now no arrangement has been made, although it is likely to take place soon. In the area of North Common, where you have undertaken a guarantee to the Company, one or two have joined to the main. One owner and occupier, after having his water supply condemned by myself and two other Analysts, you had to take to a Court of Justice, who gave an order to close the well. Some other wells on North Common I have condemned more than once, and I think action should be taken to cause them to have a pure supply.

The West Gloucestershire supply has been, on the whole, good, pure, and sufficient. At times a reddish tinge, caused by oxide of iron chiefly, has given the water an impure look. I have examined it on these occasions, and always found its organic contents the same. Its appearance on these occasions is against it. At other times it has had an earthy taste ; but on every occasion chemical analysis has always recommended it to me, and I have always used it freely. As I have never examined it bacteriologically, I can say nothing about the bacteria it contains or does not contain. But, so far, I have, on the whole, found its composition, by chemical analysis, very constant, and about the same as that given to the Committee of Parliament before the passing of the Bill.

The pumping power, I am told, is equal to 1,000,000 gallons daily. The water is brought from an old iron mine, and has, therefore, a reservoir of great extent. The gathering ground is a very large one, extending to the southern slopes of the Cotswolds.

It has to pass through various strata, and as these rocks contain much lime, the water is hard, but the hardness is diminished by certain mechanical means at the works.

The number of new connections for 1904 was 99. This information was supplied to me by the Secretary of the Company.

I have, during the year, examined 29 samples of well water : condemned 14, 8 doubtful, and 7 good, or usable.

Slaughter Houses.—The regular slaughter houses are all fairly good and clean. The structure is not always of a model kind, but so far as is possible the regulations are carried out. Pigs are mostly slaughtered in a yard or shed belonging to the owner of the pigs. These are not regular slaughter houses, as many kill only one or two in a year, and these are chiefly in the county. Inspection has had a good effect.

I am afraid inferior meat is sometimes killed in our district ; but, though I have had suspicion, I have never been able to verify it.

Dairies, Cow-Sheds, and Milk-Shops.—The order concerning these has been in force since 1887, but it was not enforced till ten years after. There has been little difficulty in the matter. Many of the larger dairies are quite up to every requirement. The register is kept up to date, and constant visitation and supervision have been made. Some of the smaller dairies, where only two or three cows are kept, require the most work. The cowsheds for these are badly constructed, badly lighted, and very often dirty. The owners of these are people who take up dairying without any knowledge of the requirements, and without any desire to acquire that knowledge. But we enforce the requirements, and thus, on the whole, even these smaller dairies and cowsheds are kept wholesome. The milk, as a rule, goes straight from the dairy to the consumer. But there are a great many people carrying on other businesses, such as grocery, green vegetable, fish, and meat shops, who sell small quantities of milk, which they keep in a wide open-mouthed dish in the shop. This is a condition of things I always interfere with. But they are always springing up in most unexpected places.

Bakehouses.—There are 22 or 23 regularly-established bakeries ; some of these use steam power, and consequently come under factory inspection. The larger ones contain all the latest improvements, and I have never found any difficulty in getting any improvements done. But there are a great many small bakeries set up by people who know little of baking, to increase their incomes by other sources. These bakehouses are frequently very poor places, badly situated, badly lighted, badly ventilated, and in insanitary surroundings ; they are frequently interfered with, and, rather than go to the expense of making necessary improvements, they stop baking. But others are always arising.

Factories and Workshops.—I have alluded to these already, and the Inspector writes a Report which is appended.

Nuisances.—Your Inspector's Report is appended.

Infectious Diseases.—The Acts of 1889 and 1890 relating to these diseases have been in force since their passing, and they have been constantly worked. We have had an Infectious Disease Hospital at Keynsham, which was erected at a time when Keynsham and Warmley Authorities were one. Since the separation of that Authority into the Keynsham and Warmley Authorities, the population of the latter Authority has so much increased on the side farthest from Keynsham that I have not used it much, but have always advocated the erection of a Hospital in conjunction with Kingswood, with whom and ourselves there is an intimate connection, both with regard to the area of greatest population and with regard to the fact that the two bodies form a Union Area. Some rapprochement was made a while ago, which seemed to me likely to come to a satisfactory conclusion. Meanwhile, Kingswood on account of the occurrence of smallpox in the area, was compelled to erect a Hospital of its own on short notice. I understand that our hold over the Keynsham Hospital terminates in March, and then we shall be without one. There has been great difficulty in finding a site, but this must be overcome, as good sites are plentiful. I think it would be wise to call in the aid of the County Council in this matter. We cannot expect the types of infectious disease to remain always so mild as they have been. By the imperfect isolation which has been carried on in private houses we have hitherto escaped difficulty, but we cannot always escape, and I think we ought to be prepared for war against these diseases in time of peace.

Again, the Ambulance and Disinfector will pass away with the Hospital. I have used the Ambulance on every occasion when a case was sent to the Hospital, but the Disinfector I have seldom used because there was no proper conveyance to take clothes to or from the Disinfector. But disinfection has been fairly carried out at home, and I have never traced a case of infection from bad disinfection of clothes and homes.

I am decidedly of opinion that we ought to have a Hospital, an Ambulance and Disinfector, and covered cart, more easily obtainable than those at Keynsham. It is not the distance I complain of, but the means of communication and the fact that an establishment is not in constant use. Every patient sent there requires making up an establishment, and the expense is very considerable without the necessary benefit gained from such expense. There can never be any adequate remuneration or improvement until we have a Hospital and other apparatus properly accessible to the bulk of the population, either by ourselves or in conjunction with Kingswood, which I have always considered to be our natural ally. We are always liable to the incursion of any infectious disease owing to our proximity to Bristol, a seaport town in constant communication with all parts of the world. I am therefore urgent upon the establishment of an Infectious Diseases Hospital in our midst which shall be always available, and to which I shall feel free to send any infectious case. Expense is necessary, but a population of 16,000 or 17,000 is in a perilous condition without one.

In this connection I must mention the existence of a great epidemic of measles in Soundwell during December, coupled with one of whooping cough. The attendance at these schools was reduced to under 50%, and I recommended the closing of the schools till after the Christmas holidays, which gave nearly a month of closing, including the holidays. The effect was decided. A similar occurrence occurred at Oldland Common in the beginning of the year, and similar measures were taken, but I found that many of the affected families sent their unaffected children to Oldland National School, which soon became similarly affected. This was also closed at the urgent request of the Managers.

In thinking this matter over I do not see, except in rural districts, where the benefit to public health comes in, and that is the only aspect of the case I have to deal with. In villages and anywhere when an aggregation of population occurs, closure is very problematical. In such places mothers and children mix much and convey infection, so that closure of a school is of no avail or worse, because there is no means of watching it, as in the case of a notifiable disease. Of course, with a low percentage of attendance the education of the children suffers, and the standard of education is lowered and the teachers suffer. The managers also suffer from a monetary point of view. The County Council does not suffer. So that by closing the school all benefit, so far as I can see, but the Treasury. But as I represent the Public Health, and it is in no wise, except in few circumstances, benefitted by closure, I think it inadvisable in future to order closure of schools. This is to be represented to the County Council.

Notification.—The total number of cases notified was 118, as against 143 in 1903. They are distributed among six diseases, viz., Scarlet Fever 72, as against 89 in the former year; Diphtheria 17, as against 27 the previous year; Erysipelas 16, as against 23; Enteric Fever 11, as against 4; Membranous Croup 1, as against 0; and 1 Puerperal Fever, as against 0. Both Diphtheria and Scarlet Fever have been, during the whole year, scattered over the whole district. The three principal notified diseases have all decreased in number. Scarlet Fever has caused two deaths; Diphtheria and Membranous Croup 6, Erysipelas none, Enteric Fever one, and Puerperal Fever, led to death by septic causes, according to the certificate, though not ascribed as *the* cause.

Isolation has been carried out at home, and by great vigilance has been fairly successful.

Smallpox.—No cases. I understand that the conditions of vaccination are still improving; and I am not aware of the Authority having left anything undone to improve it. Vaccination, if followed up by systematic re-vaccination, would soon remove the disease from our midst.

Scarlatina.—72 cases have been notified to me, as against 89 last year, and two deaths have occurred. On the whole the type has been mild. The disease has occurred over the whole district and over the whole year. There has never occurred the character of an epidemic.

Diphtheria.—17 Notifications have been sent to me, with one of Membranous Croup, as against 27 last year. The case of Membranous Croup died, and four of the Diphtheria cases died. But there was never any occurrence of an epidemic, except for three weeks, due to contact with the Schools in the Bristol district. The mortality was high.

Enteric Fever.—11 cases of Enteric Fever were notified during the year, as against 4 last year, and one death occurred. All the cases except one were imported from outside areas, and no new cases, except that one, arose from these.

Measles.—We have had a few cases during the whole year; but a very fierce epidemic broke out in December, at Soundwell, which so reduced the attendance (along with a simultaneous spread of Whooping Cough) that I considered it advisable, for many reasons, to close Soundwell Schools, especially as it was approaching the Christmas holidays. The closure seemed to have a very beneficial effect. The epidemic has spread to Downend and Mangotsfield, but unless the attendance is much less than it is now I do not purpose closing. In the Oldland district, first one School and then the other has been closed. But there the conditions are different; for children attending these Schools come from different villages and hamlets sufficiently distant from the area of the School to separate the children in them from coming into contact, except at School. Hence, closing a School may prevent that contact, and therefore the spread of the disease.

Influenza.—The disease has been in epidemic form since November, and has given rise to one death. The disease set up Rheumatic symptoms in my own practice, and I think I have seen more Pneumonia, Bronchitis, and Rheumatic Fever as sequelae than formerly.

Diarrhœa and Dysentery.—There were five cases of death from Diarrhœa and six from Enteritis. I have reason to believe that some at least of the latter were cases of the former. You will observe that four of the six cases of Enteritis were under one year of age. I am inclined to uphold the same opinion I expressed last year.

Phthisis and other Tubercular Diseases.—30 deaths have occurred from Phthisis this year as against 12 last; and to the other tubercular diseases are to be ascribed 4 deaths, as against 7 the year before. This is a considerable increase, notwithstanding the supposed better treatment of these diseases. Whether this is owing to better diagnosis, or to the greater occurrence of such diseases no one can say. There is certainly more general treatment on open-air principles in the homes of the patients than formerly; but whether those principles are fully carried out I cannot say. I certainly think it very advisable to have a patient treated in a proper Hospital for 2 or 3 months at first, so that he may learn what to do, and get accustomed to doing it by routine. He is much more to be depended on for carrying out these principles afterwards, for the proper performance of these duties has become to him so much of a second nature, and his

knowledge has become so much greater, that he is not so easily influenced by others to neglect what is right. The great drawback for the poor is the excessive charge of these Sanatoria.

Mumps, Chicken-pox, and Pertussis have all been amongst us during the year. Whooping Cough has been rather severe, and given rise to 7 deaths. It has not yet abated. Of course I do not exactly know how prevalent it has been, except from my own practice, in which it has occurred extensively.

Sale of Food and Drugs Act.—I am not aware of any action having been taken under these Acts during the year.

Vital Statistics.—

Acreage, 9,682 acres	} estimated.
Population, 1891—13,539	
,, 1901—15,954 (census).	
,, 1904—17,051 (middle of year)	estimated.

If the estimates of former years is anything like right, I do not think the estimate of this year is far out. I have always, since the census, kept the figures below Dr. Farn's estimate by the logarithmic method, based on the increase during the last decade. Because the causes of increase during the last decade are not operating so powerfully. I am aware that great numbers of new houses are being erected, but the average number of persons per house is not so great. During last decade the opening of a railway station at Staple Hill and the arrival of the tramways gave an impetus to immigration for the time, which has not continued in the same proportion during last year.

Births.—The total number of births was 456, as against 460 last year. This is considerably below the average, and the rate is 26·74, against 31·34 for the former 10 years, and 27·33 for the last year. Only in 1900 were the births lower, but the rate was higher.

Deaths.—The total number of deaths was 244, of which 8 died at Keynsham Workhouse, and the rate was 14·31, slightly over the rate for the 10 years, which was 13·87, and much over 1903, which was 10·51, the lowest for the ten years previous. The natural increase of population was therefore 212. Emigration into town has been going on on account of want of lighting.

Infant Mortality.—60 deaths occurred under one year of age, and as 456 births took place the rate 131·57. The rate is below the average.

Zymotic Death Rate.—Deaths arising from these diseases are as follows : Scarlet Fever, 2 ; Whooping Cough, 7 ; Measles, 2 ; Diphtheria, 6 ; Enteric Fever, 1 ; Diarrhoea and Dysentery, 5 ; giving a total of 23, and a rate of 1·35 nearly

The other rates will be found in the County Council's table at the end, but you must not give too much attention to these figures, for it is only when collated with those of other districts so as to cover a wide area, that they are of any worth.

Vital Statistics of Mangotsfield.—

Population (estimated), 9,300.
,, (census), 8,815.

Births.—The total births were 256, as against 264 last year. The rate was therefore 27·52, which is slightly above that of the whole district.

Deaths.—The total deaths were 148, as against 88 last year, which was the lowest on record. The death rate was therefore 15·91, considerably above that of the whole district. I do not see anything in the death-returns to show any specific reason.

Infant Mortality.—34 deaths occurred under one year, and as 256 births were registered, the infant mortality is 132·81, which is slightly over the whole district.

Zymotic Death Rate.—15 deaths occurred from these diseases during 1904, as follow, viz. : Scarlet Fever, 1 ; Croup, 1 ; Diphtheria, 4 ; Pertussis, 6 ; Diarrhœa, 2 ; and Measles, 2 ; 16 in all, as against 6 last year. The zymotic death rate was 1·72, nearly three times that of last year. But, of course, figures over such a limited population and area are useless until collated with a larger population and area.

I beg, in conclusion, to thank my fellow-officers for all their kind co-operation.

W. MURRAY, M.D., &c.,

Medical Officer of Health

Copy of Form which Medical Officers of Health in the County of Gloucester are requested by the Sanitary Committee of the County Council to fill up.

TABLE C. 1905.

Housing—

No. of Plans submitted ...	...	114.	82 approved.
No. of Houses built ...	...	57.	
No. of Houses placed in habitable repair ...	...	3.	

Sewerage and Drainage—

No. of Earth Closets, Pail Closets, or improved privies constructed	4.
No. of Notices served to empty privy vaults ...	10.

Refuse Disposal—

Has any change been made in the arrangements for the removal or disposal of house refuse ? ...	The Parochial Committee of Mangotsfield Parish has made arrangements to have it removed twice a week. No order made anywhere else in the district.
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Water Supply—

Has there been any change in the existing sources of supply ? ...	99 Houses have been connected with W.G. Water supply during the year.
No. of new connections ...	99.
No. of wells closed ...	2.
No. of samples taken for examination ...	39.

Numbers Inspected of each of the following—

Slaughter-Houses ...	14.
Bakehouses ...	18.
Dairies, Cowsheds, Milkshops ...	60.
Workshops ...	50.
Residences of out-workers ...	200.

Elementary Schools—

No. in district ...	10.
No. of insanitary conditions dealt with ...	One in Cadbury Heath. Still very unsatisfactory.
Are the sources of water supply satisfactory ? ...	Yes.

Infectious Diseases—

No. of cases visited and reported on	118.
No. of Houses disinfected ...	112.

Isolation Hospital Accommodation—

Has any change in the existing conditions been made ? ...	None has been made except that our hold over Keynsham terminates in March.
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General—

Number of complaints received ...	31.
Total number of nuisances reported	53.
No. of swine nuisances reported ...	13.
Total number of nuisances abated	50.
Total number of notices served ...	29.

To the Warmley Rural District Council.

GENTLEMEN,

I have pleasure in submitting my Report, showing the amount of work done in your district during the year 1904.

Earth Closets constructed	...	...	...	...	4
Number of Notices served to empty Privy Vaults...	...	...	...	...	10
Dairies, Cowsheds, and Milkshops	...	...	...	...	60
Infectious Diseases	...	...	...	...	118
Number of Houses disinfected	...	...	...	...	112
Total Number of Complaints received	...	...	...	...	31
„ „ Nuisances abated	...	...	...	...	53
Swine Nuisances reported	...	...	...	...	13
Total Number of Notices served	...	...	...	...	29
„ „ Summonses taken out...	...	...	...	...	1
„ „ Convictions	...	...	...	...	1
„ „ Cases visited and reported on	...	...	...	...	112
Bakehouses inspected	...	...	...	...	19
Company's Water laid on to houses in district	...	...	...	...	99
Number of Wells closed	...	...	...	...	2
„ Samples taken for examination	...	...	...	...	39
„ Gipsies' vans removed	...	...	...	...	30
Slaughter-houses inspected	...	...	...	...	13
Factories and Workshops and Work-places inspected	...	...	...	...	371
House Drains entirely re-laid	...	...	...	...	3
„ partly re-laid	...	...	...	...	5
Articles of Bedding and Clothing disinfected after infectious diseases in the various homes too numerous to mention.					

I am pleased to state that the total number of infectious diseases notified during the year is 25 less than that of the preceding year, also that the sanitary condition of the district generally has greatly improved.

C. R. CROSS,

Inspector of Nuisances.

Factories and Workshops Act.

I have pleasure in presenting the annual Report in respect of the factories, workshops, and workplaces of the Council's district for the year 1904.

During the year I have received 29 lists containing 869 names of persons receiving work from factories in the Council's area, and bringing work into the district from the surrounding Council's areas.

I have systematically visited the factories and workshops, and the greater portion of the houses or workplaces where work is being done. In the factories I found little to complain of, and in ten cases only, in visiting the workshops and workplaces, did I find anything to which I could reasonably object; in these ten cases notices were served for whitewashing and other forms of cleanliness, and in each case the notice was promptly complied with.

A careful inspection of the workplaces reveals the fact that, in general, the sanitary conditions and the cleanliness of these places are quite satisfactory. In regard to some of the workplaces, the addresses furnished are very vague, and I have experienced considerable difficulty in tracing some of them.

I have not been able to trace a case where work has been given out to be done on premises that are unwholesome. In some cases work has been done on premises where there has been infectious disease, but in every case of infectious disease which is brought to my notice by your M. O. H., I immediately visit the place and give instructions, and satisfy myself that proper isolation is obtainable.

I would like to point out to the Council that the question of isolation is one upon which I am very strict, especially so where housework is done; but in every case where housework has been done the means for isolation has been sufficient, and in no case have I found it necessary to take any steps with a view of housework being prohibited in such places.

Included in the list of workshops in your Council's area are 19 bakehouses, and in only one instance during the year was my attention called by H. M. I. of factories to any defects on these premises, and that was immediately remedied; and I am pleased to state that the general condition of the bakehouses is very satisfactory. There is no underground bakehouse in your district.

C. R. CROSS,

Inspector of Nuisances and Factories.

Inspection of Factories, Workshops, Workplaces, &c.

No. of Factories inspected	...	...	...	11
No. of Workshops „	...	...	...	62
No. of Notices sent	...	...	...	10
Cases of want of cleanliness	...	...	...	10
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory Act (S. 5)—				
Notified by H.M. Inspector	...	...	...	2
Reports (action taken) sent to H.M. Inspector				2
Lists of outworkers	...	...	...	6
Number of outworkers	...	...	...	448
Addresses of outworkers forwarded to other Authorities				114
„ „ received from other Authorities				421
Total No. of Workshops on Register	...	...	...	65

WARMLEY,

March 10th, 1905.

GENTLEMEN,

I have pleasure in reporting that during the year 1904 the following work has been done, viz. :—

Buildings.—Plans for 114 buildings have been laid before your Council and 82 were approved. 57 buildings have been erected under the bye-laws and 32 contraventions of the bye-laws have been committed in which action has been taken by your Council.

In the case of four houses at Soundwell, the mortar used in their construction was found upon analysis to be poor, and your Council took immediate action in the matter to have it remedied.

Sewers.—Your sewers in Mangotsfield Parish have worked well during the year.

Sewage Disposal.—The Sewage Disposal Works have given satisfactory results throughout the year, but the crops have been a little unsatisfactory as regards the roots, owing to the condition of the weather during the Spring of the year.

Lighting.—Your Council have, during the year, established a system of lighting for the chief roads in Mangotsfield Parish, gas lamps having been erected when gas mains are laid in the roads, and in other parts oil lamps are in use.

Roads.—Your Council have made up three important roads in Mangotsfield Parish, viz. : Kensington Road, Southernhay Road, and Acacia Road, at the cost of the frontagers. The cost of making up these roads is less than the estimated cost.

Your obedient servant,

HENRY M. BENNETT.

TABLE I.
Vital Statistics of Whole District during **1904** and previous years.

YEAR	Population estimated to Middle of each Year	BIRTHS		TOTAL DEATHS REGISTERED IN THE DISTRICT						TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.	Deaths of Non-residents registered in Public Institutions in the District	Deaths of Residents registered in Public Institutions beyond the District	NET DEATHS AT ALL AGES BELONGING TO THE DISTRICT	
		Number	Rate*	Under 1 Year of Age		At all Ages							Number	Rate*
				Number	Rate per 1,000 Births registered	Number	Rate*							
I	2	3	4	5	6	7	8	9	10	11	12	13		
1894	14277	469	32.85	77	164.17	223	15.61	No Public Institution in the District.	No means	of knowing.	123	15.61		
1895	14533	524	36.05	67	127.86	193	13.27		...	6	137	13.69		
1896	15200	510	33.55	55	107.84	212	13.88		1	...	107	13.81		
1897	15500	481	31.03	78	162.16	275	17.74		10	7	111	17.54		
1898	15700	491	31.27	67	136.45	237	15.09		...	9	108	15.67		
1899	15950	507	31.78	89	175.54	256	18.03		...	...	110	16.05		
1900	16200	449	27.71	56	122.49	211	13.02		1	4	108	13.21		
1901	16122	463	28.73	64	138.23	216	13.40		...	9	118	13.96		
1902	16510	496	30.04	64	129.03	215	13.22		...	12	77	13.74		
1903	16830	460	27.33	42	91.03	170	10.10		...	7		10.51		
Averages for years 1894-1903	} 15672.2	485	31.34	65.9	134.48	220.8	14.34		1.8	6	99.9	13.87		
1904		456	26.74	60	131.57	236	13.84			8	244	14.31		

* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water), 9,682. Total population at all ages (at Census of 1901)—15,954.
Number of inhabited houses, 3,625 and average number of persons per house, 4·4 (at Census of 1901).

TABLE IIVital Statistics of separate Localities in **1904** and previous years.

YEAR	NAMES OF LOCALITIES							
	WHOLE DISTRICT				PARISH OF MANGOTSFIELD			
	Population esti- mated to middle of each Year	Births registered	Deaths at all Ages	Deaths under 1 year	Population esti- mated to middle of each Year	Births registered	Deaths at all Ages	Deaths under 1 year
1894	14277	469	223	77	...	...	...	...
1895	14533	524	193	67	...	...	...	...
1896	15200	510	212	55	...	...	...	...
1897	15500	481	275	78	...	...	...	...
1898	15700	491	237	67	...	...	...	...
1899	15950	507	256	89	...	...	...	...
1900	16200	449	211	56	...	...	...	...
1901	16122	463	216	64	8815	262	134	38
1902	16510	496	215	64	9000	270	120	33
1903	16830	460	170	42	9180	264	88	17
Averages of Years 1894-1903 }	15672·2	485	220·8	68·9	8998·33	265·33	114	29·33
1904	17051	456	236	60	9300	256	148	34

TABLE IIICases of **Infectious Disease** notified during the Year **1904**.

NOTIFIABLE DISEASE	CASES NOTIFIED IN WHOLE DISTRICT							TOTAL CASES NOTIFIED IN EACH LOCALITY.	NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY
	At all Ages	At Ages—Years						PARISH OF MANGOTS- FIELD.	
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and up- wards		
Small-pox	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...
Diphtheria	17	...	8	7	1	1	...	14	...
Membranous croup	1	...	1	...	...	..	...	...	...
Erysipelas... ..	16	...	...	2	2	10	2	4	...
Scarlet fever	72	1	19	42	7	3	...	21	...
Typhus fever	...	...	...	...	...	...	...	...	...
Enteric fever	11	...	...	2	6	3	...	4	...
Relapsing fever	...	...	...	...	...	...	...	...	...
Continued fever	...	...	...	...	...	...	...	...	...
Puerperal fever	1	...	...	...	...	1	...	...	...
Plague	...	...	...	...	...	...	...	...	...
Totals	118	1	28	53	16	18	2	43	...

Isolation Hospital—Keynsham Isolation Hospital, in Keynsham Parish.

TABLE IV.

Causes of, and Ages at, Death, during the Year 1904.

CAUSES OF DEATH I	DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJOINED AGES							DEATHS IN MANGOTSFIELD PARISH AT ALL AGES.
	All ages 2	Under 1 year 3	1 and under 5 4	5 and under 15 5	15 and under 25 6	25 and under 65 7	65 and up- wards 8	
Smallpox	...	...	...	...	...	...	...	...
Measles	2	1	1	...	...	...	...	...
Scarlet fever	2	..	1	1	...	...	...	...
Whooping-cough	7	4	3	...	...	...	...	...
Diphtheria and membranous croup }	5	...	4	1	...	...	...	...
Croup	1	...	1	...	...	...	...	...
Fever {	1	...	...	...	...	1	...	...
Typhus	...	...	...	...	...	...	...	...
Enteric	...	...	...	...	...	...	...	...
Other con- tinued	...	...	...	...	...	...	...	...
Epidemic influenza	1	...	...	...	...	1	...	...
Cholera	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...
Diarrhœa	5	4	...	...	...	...	1	...
Enteritis	6	4	1	1	...	...	...	...
Puerperal fever	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...
Other septic diseases }	1	...	...	...	...	1	...	...
Phthisis	30	...	..	...	6	24	...	...
Other tubercular diseases }	4	...	3	...	...	1	...	...
Cancer, malignant disease }	7	...	...	...	...	2	5	...
Bronchitis	16	4	5	...	...	4	3	...
Pneumonia	15	4	5	...	...	3	3	...
Pleurisy	...	...	...	...	...	...	...	...
Other diseases of respiratory organs }	3	...	...	...	...	...	3	...
Alcoholism	1	...	...	...	...	1	...	...
Cirrhosis of liver }	1	...	...	...	...	1	...	...
Venereal diseases	1	...	...	...	...	1	...	...
Premature birth	11	11	...	...	...	...	...	...
Diseases and acci- dents of parturition }	...	...	...	...	...	...	...	...
Heart diseases	29	1	...	1	...	9	18	...
Accidents	4	1	...	...	2	1	...	...
Suicides	2	...	...	...	...	2	...	...
All other causes	80	26	6	2	2	14	40	...
All causes	244	60	30	6	10	65	73	...

In recording the facts under the various headings of Tables I, II, III, and IV, attention has been given to the notes on the Tables.

February, 1905.

WM. MURRAY, M.D., *Medical Officer of Health.*

TABLE V

**RAINFALL IN 1904, AT PUCKLECHURCH VICARAGE,
in the County of Gloucester.**

RAIN GAUGE—

Diameter of Funnel: 5 inches. Height of Top: above ground, 10 inches ;
above sea level, 370 feet.

Month	Total Depth	Greatest fall in 24 Hours		No. of Days on which '01 or more fell
	Inches	Depth	Date	
January ...	3'38	'54	12	24
February ...	3'68	'63	10	23
March ..	1'65	'32	28	18
April	1'91	'35	15	14
May	2'51	'44	27	17
June	1'11	'54	24	7
July	3'75	1'26	26	13
August ...	2'72	'54	14	15
September ...	1'75	'41	6	14
October ...	1'14	'43	6	17
November ...	1'99	'46	7	13
December ...	2'26	'37	6	19
Total ...	27'85			193

(Signed) S. G. GILLUM.

URBAN POWERS IN FORCE

IN THE DISTRICT.

PUBLIC HEALTH ACT, 1875.

Sec. 25—Whole district.

26—(1) All except Hanham Abbots.

44—Whole district.

66—Mangotsfield only.

112—Whole district.

113— „

114— „

115— „

155— „

157— „

158— „ (except Hanham Abbots).

160— „

161—(1) Mangotsfield only.

169—Whole district (except part 1).

170— „

171—(As to fires) Mangotsfield only.

3—Public Health Buildings in Street Act, 1888.

23—Public Health Acts, Amendment Act, 1890, whole district.

Part 2 „ whole district.

TOWNS POLICE ACT, 1847. Whole district.

Sec. 28—Paragraphs as 13, 17, 18, 19, 24, and 30.

29—

32—

33—

